

Determination of *Teloschistes flavicans* (sw) norm anti-inflammatory activity

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ABSTRACT

Background Lichens produce a variety of substances that possesses pharmacological actions. However, rare products are submitted to rigorous scientific tests or have the risk potential or side effects evaluated. The lack of medical and sanitary control, absence of accurate botanical identification or purity certification, founded in diverse natural products, may represent great danger to population health. This work aimed to evaluate toxic effects and anti-inflammatory action in vivo of *Teloschistes flavicans* (Sw.) Norm. (TFN) unrefined extracts, as well as determinate its main constituents. Methods The carrageenan induced paw edema and cotton pellet implant induced granuloma methods were utilized, besides a classic acute toxicity test. TFN acetone extract inhibited carrageenan paw edema on 60, 120, and 180 min (inhibition percentiles of 45.03%, 60.59% and 41.72%). Results TFN ethereal (inhibition percentiles of 23.95% and 29.01%) and chloroform (inhibition percentiles of 28.8% and 22.04%) extracts inhibited edema on 120 and 180 min. None of the extract inhibited the granuloma development. None of the extract caused death or other acute toxicity signs. Vicanicine (60.26% in ethereal extract and 51.17% in acetone extract), parietine (9.60% in ethereal extract and 15.38% on second), falacinol (0.78% in ether and 14.95% in acetone) and very low concentration of falacinal (0.15% in ethereal extract and 3.32% in acetone extract) were detected in the medicine. Conclusions The tested extracts have antiedematogenic activity, but are not effective on subchronic inflammation. The extracts do not present toxic effects in administered doses.

KEYWORDS

Anti-inflammatory activity . lichen substances . *Teloschistes flavicans*

REFERENCES